

**REMARKS**

The undersigned thanks Examiners Gitomer and Shen for the in-person interview which took place in the PTO on March 9, 2007 with the undersigned and applicant Mr. Jay Teich attending. At the interview the nature of the invention was discussed extensively, and Mr. Teich displayed parts of the instrument which has been developed that implements the methods claimed herein. Applicant and the Examiners walked through a proposed claim suggested by Examiner Gitomer, and applicant explained the basis for his belief that none of the pending rejections are proper. At the interview, Examiner Gitomer indicated he believed there was patentable subject matter in the application and suggested various claim language. The proposed claim language was discussed and refined at the interview, and the Examiners indicated that, subject to final review, the claims should be allowable and were free of all applied prior art. For this reason, argument in addition to that previously presented as to why the outstanding art rejections are improper is not presented here.

Subsequently, on March 19, a set of claims including the new claim, with dependent claims harmonized to the new wording, was faxed to the Examiners for their review. Next, the undersigned and Examiner Gitomer had a brief telephone discussion wherein Examiner Gitomer voiced two remaining concerns. Specifically: 1) it may be unclear based upon a reading of the specification as to what happens to the media during the course of practice of the method, and this may raise a potential enablement issue; and 2) the issue of antecedent basis/written description for part d) of claim 1 as proposed. The claim resulting from this joint effort now is presented as an amendment to pending claim 1, and set forth above.

Regarding point 1, applicants submit that a person of skill in the art would understand the nature of and how to make and use the inventive methods as now claimed, and submit that they have complied fully with the first paragraph of 112 in their specification as filed. For example, as can be seen readily by comparing Figs. 1 and 2, the media *typically stays in the well during execution of the entire method*. Note in Figs. 1 and 2 as filed (pasted below for the convenience of the Examiner), the medium 130 is at a first lower level when the barrier/plunger is in an up position, and at a higher level in Fig 2 when it is in a down position, as the volume of the barrier displaces some of the volume of the medium. As illustrated, as the barrier reciprocates into and out of the well, in this preferred embodiment medium flows around it through the annulus defined by the space between the well and the barrier. Please note and compare diameters  $d_1$  and  $d_2$  in Figure 1.

Furthermore, numerous passages in the specification explicitly disclose this. For example:

- Paragraph 24 “*temporary sample chamber is created within a larger vessel,*”
- Paragraph 25 “Furthermore, the *media containing cells need not be removed from the vessel; it is only displaced temporarily.*”
- Paragraph 43 and 44: “The method includes providing an original volume of media about the cells, reducing the original volume of media about at least a portion of the cells to define a reduced volume of media, and analyzing a constituent related to the cells within the reduced volume of media. \* \* \* The reduced volume of media about the cells may be increased to substantially the original volume.”
- Paragraph 52: “*Reducing the volume of media may include disposing a barrier in the vessel, typically not causing displacement of the media out of the vessel;*”

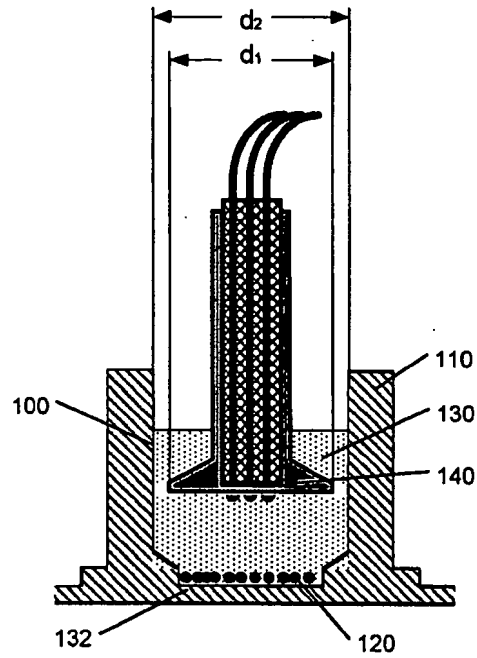


Fig. 1

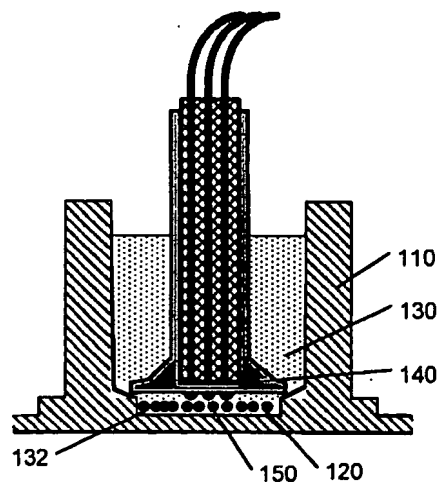


Fig. 2

- Paragraph 89: “A variety of types of *barriers may be employed to temporarily reduce the volume of media about the cells without causing displacement of media out of the vessel*, such as a simple planar cover lowered vertically, a sliding cover extended horizontally, or a pair of disks with cutouts that can be rotated to act as a valve. It is desirable that the barrier not disturb, i.e., not move, the cells or the media proximal to the cells, in order to reduce the required settling time prior to a measurement.”
- Paragraph 96 : “*Once the measurement sequence is completed, the sensor/covers are retracted to expose the cells to the full volume of media within each vessel;*” and
- Claim 2 in the application as filed: “The method of claim 1, further comprising the step of *increasing the reduced volume of media about the cells to substantially the original volume.* (italics supplied in all cases).”

Note also claim 29 as filed: “The method of claim 28 wherein the barrier is disposed in the vessel *without causing displacement of media out of the vessel.* ” Obviously, claim 1 was written intentionally broad enough to cover the situation where at least some of the media is displaced out of the well, or somehow bled off, etc.

Regarding point 2, part d) of claim 1 has now been amended to state “moving the barrier to increase the reduced volume of media about the cells to substantially the original volume.”

This is clearly and unequivocally disclosed in numerous places in the specification as noted above, and is a limitation which is essentially *ipse verbis with the specification and claims as filed* (“further comprising the step of increasing the reduced volume of media about the cells to substantially the original volume.”). Applicants submit there can be no legitimate issue of lack of written description in these circumstances.

### **CONCLUSION**

In light of the foregoing, Applicants respectfully submit that all claims are in condition for allowance. This amendment should be entered and the application passed to issue.

If the Examiner believes that a telephone conversation with Applicants' attorney would expedite allowance of this application, the Examiner is cordially invited to call the undersigned attorney at (617) 570-1780.

Respectfully submitted,

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Reg. No. 27,829

Tel. No.: (617) 570-1780  
Fax No.: (617) 523-1231

Edmund R. Pitcher by NCV  
Edmund R. Pitcher  
Attorney for Applicants  
Goodwin Procter LLP  
Exchange Place  
Boston, Massachusetts 02109